

*What is claimed is:*

1. An oil circuit of a jack for rising an object to a preset position rapidly comprising an oil inlet circuit, an oil return circuit, and an overload protecting circuit, and the inner oil reservoir(1), outer oil reservoir(2),  
a  
a 5 pumping oil chamber(3) and piston rod (4) of a hydraulic cylinder (10), wherein

a in the oil inlet circuit, the outer oil reservoir (2) of the hydraulic  
a cylinder (10) is communicated to the pumping oil chamber (3) through a  
a check valve (A1), the pumping oil chamber (3) passes through a  
a 10 sequential valve (B) to be communicated to the inner oil reservoir (1) of  
a the hydraulic cylinder (10), and the outer oil reservoir (2) is  
a communicated to the inner oil reservoir (1) of the hydraulic cylinder (10)  
a through a check valve (A3);

a in the oil return circuit, the inner oil reservoir (1) of the hydraulic  
a 15 cylinder (10) is communicated to the inner oil chamber (41) of the piston  
a rod (4) through a check valve (A4), then it further passes through a  
a release valve (C) to be communicated to an outer oil reservoir (2); when  
a a load is loaded and then the jack returns to the original position, the  
a release valve (C) can be adjusted to a release position so that the oil  
20 return circuit is opened; and

a in the overload protecting circuit, the outer oil reservoir (2) of the  
a hydraulic cylinder (10) passes through a safety valve (D) to be  
a communicated to the pumping oil chamber (3); when the pressure of the  
a hydraulic cylinder (10) is over a rated pressure, the safety valve (D) will  
25 be conducted so that the overload protecting circuit is actuated;

wherein

in the aforesaid hydraulic loop system, the maximum effective oil storing amount of the pumping oil chamber is large than or equal to the maximum effective oil storing amount of the inner oil chamber in the piston rod;

a common oil channel(31) is installed between the pumping oil chamber (3), the inner oil chamber(41) of the piston rod(4) and the sequential valve (B), a check valve(A2) is installed between the oil channel(31) and the sequential valve (B), an oil channel (311) is installed between the sequential valve(B) and the check valve (A2) for being connected to the inner oil chamber (41) of the piston rod (4); when in the working conditions of dump load or light load, the sequential valve(B) is closed, thus, the hydraulic oil enter into the inner oil chamber(41) of the piston rod(4) from the pumping oil chamber(3) through the check valve (A2) so that the piston rod(4) will rise rapidly to a still condition; in the still load condition, since the check valve(A2) closes the oil channel(31), the sequential valve (B) will open automatically so that the inner oil chamber(41) of the piston rod (4) is communicated to the inner oil reservoir(1); thus the inner and outer oil pressures of the oil guiding tube(50) in the piston rod(4) are equal.

2. The oil circuit of a jack for rising an object to a preset position rapidly as claimed in claim 1, wherein the sequential valve(B) is located outside with a 90 degrees of position shift, and a connecting oil channel (11) is installed between a <sup>valve</sup> ball valve(B1) and the inner oil reservoir(1) so that the adjusting nut of the sequential valve(B) is locked

to the outer wall of a rear seat(60) of the jack.

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